

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
7 July 2005 (07.07.2005)

PCT

(10) International Publication Number  
**WO 2005/061791 A1**

(51) International Patent Classification<sup>7</sup>: **D21H 15/10**,  
11/20, C08F 251/02

(74) Agent: **SEPPO LAINE OY**; Itämerenkatu 3 B, FI-00180  
HELSINKI (FI).

(21) International Application Number:  
PCT/FI2004/000794

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date:  
23 December 2004 (23.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
20031902 23 December 2003 (23.12.2003) FI

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **VALTION TEKNIILLINEN TUTKIMUSKESKUS** [FI/FI]; Vuorimiehentie 5, FI-02150 ESPOO (FI).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **BUCHERT, Johanna** [FI/FI]; Alalinnake 5 A 9, FI-02160 ESPOO (FI). **GRÖNQVIST, Stina** [FI/FI]; Vehkasuontie 18 A 4, FI-06750 TOLKKINEN (FI). **MIKKONEN, Hannu** [FI/FI]; Puistokuja 12 A, FI-05201 RAJAMÄKI (FI). **OKSANEN, Tarja** [FI/FI]; Ensimmäinen huvilatie 5A, FI-02730 ESPOO (FI). **PELTONEN, Soili** [FI/FI]; Sointulantie 33, FI-05200 RAJAMÄKI (FI). **SUURNÄKKI, Anna** [FI/FI]; Tallipojankuja 6 B, FI-02940 ESPOO (FI). **VIHKARI, Liisa** [FI/FI]; Lökkikuja 5 F, FI-00200 HELSINKI (FI).

**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: PROCESS FOR PRODUCING FIBRE COMPOSITES

(57) Abstract: The present invention concerns a process for producing fibre composites. In particular, the invention provides a novel way of producing biodegradable composites comprising a hydrophobic polymer material and a reinforcing component of fibres derived from plant materials. Composite material produced by means of the present invention has improved strength properties and enhanced adhesion between the bifunctional fibre and the natural or synthetic polymer.



WO 2005/061791 A1